

the 246 cases where Kranzfeld's pure preparation was employed, any slightest disagreeable accessory effects could be noticed, though frequently the anæsthesia was to be made immediately after the patient's meals. In the remaining four cases, however, in which some commercial articles had been used, there were observed such after effects as nausea, vomiting (in one case persisting for four hours), diarrhœa and cough; besides, the drug imparted a repulsive garlic odor to the patient's breath (which was invariably absent when the pure bromide had been inhaled), while the quantity necessary for inducing analgesia proved to be as large as one ounce. Dr. Kheifetz's general conclusion is to the effect that bromide of ethyl (provided a chemically pure substance is employed) forms an excellent, safe and convenient general anæsthetic in dental operations, no special or extensive appliances or any assistants being required. The author further resorted to a general bromide analgesia in two cases of panaritium and periproctitis treated by incision; and to a local one (by means of Richardson's pulverizator) in a case of extirpation of incarnated toe-nail with consecutive thermo-cauterization. In all the three patients the results left nothing to be desired.—*Meditsinskoie Obozrenie*, No. 13, 1889, pp. 64-67.

VALERIUS IDELSON (Bernel).

## HEAD AND NECK.

**I. Temporary Resection of the Cranial Wall as a Substitute for Trephining.** By Dr. W. WAGNER (Konigshutte). The operation of trephining, as practiced to-day, except when done for compound fractures and caries, has the disadvantage of leaving the patient with an opening in the skull, which, although in most cases it is well closed by a mass of cicatricial tissue, still frequently compels the patient to wear an artificial protector. To overcome this unfortunate accident, surgeons have more or less successfully practiced the transplantation of the excised disk of bone, or of disks of bone taken from animals.

The writer has for a long time experimented on the cadaver with a method which permits the temporary resection of large portions of

bone, which can be removed from the opening in the skull but yet remain attached to the soft parts so that on replacement a healing in position is assured.

Wagner proceeds in the following manner: An incision in the shape of the Greek omega is made through the soft parts down to the periosteum, and if these have retracted, the periosteum is divided in the same manner, along their border. The bone is then chiseled through along the line of the periosteal incision, then the bridge of bone at the base of the omega is divided subcutaneously with a small chisel, care being taken not to injure the soft parts.

The excised bone is gently lifted out of its situation with elevators — retracted with its coverings, which remain attached to the surrounding soft parts by a pedicle or base at least 3 cm. wide, thus insuring proper nutrition.

After the operation the flap is returned to its proper position, the pericranial and skin flap carefully sutured, and fine drainage tubes inserted at the angles at the base of the wound. The piece of bone always fits perfectly in the piece from which it was removed, especially if the rough edge of the internal lamella which usually remain attached to the borders of the defect are not chiseled away, and they will also prevent any possible depression of the fragment.

Wagner had the opportunity to try his method in one case and found it as easy of execution on the living as on the dead. The case was that of a man who had sustained a fracture of the base of the skull with rupture of the left middle meningeal artery. The operation was undertaken 60 hours after the accident to relieve the pressure symptoms caused by the clot. The operation was carried out as described above, and seemed to work perfectly, giving plenty of room. Extensive fracture of skull and severe brain injury was found. The patient died 24 hours later. The autopsy showed the flap of bone and soft parts to be in a perfectly healthy condition.

Wagner further says that instead of a chisel, a number of small circular saws worked by a motor, might be used to remove the piece of bone, but though lessening the shock from repeated hammering, it would not leave the serrated irregular edges which contribute to hold

the piece of bone in position and prevent its becoming depressed.—*Centlb. f. Chirg.*, No. 47, 1889.

**II. Tetany Following the Extirpation of Goitre.** By DR. A. VON EISELBERG (Vienna). The neurosis known as tetany, first noticed by Billroth as a sequel to total extirpation of the thyroid gland, is very dangerous, in that respect differing from the other trouble which goes under the same name.

In 12 cases observed at Billroth's clinic mostly women, eight ended fatally, and those twelve cases are 23% of all his cases of total extirpation of the thyroid gland. Two cases became chronic. Neither a previous nervous predisposition nor the healing of the wound, nor a wounding of the recurrent nerve can explain the condition. In seven cases there was, besides the ordinary characteristic symptoms, an involvement of the muscles of the face, neck, larynx, diaphragm and abdomen, so that dyspnœa and even loss of consciousness occurred.

In the two above mentioned chronic cases in which the disease had lasted respectively 6 and 9 years, the attacks were more frequent in cold damp weather.

In the fatal cases death occurred in from 3 to 30 days, and in one case after 7 months.

The proof that only total extirpation of the thyroid gland causes tetany is furnished according to the reporter, by the following facts:

1. That in 53 total extirpations, the disease followed in 12 cases and after 109 partial operations it was never observed.
2. From the results of experiments on animals made by Schiff, Wagner, Horsley and others.

As a result of over 100 operations on the thyroid practiced on cats, Eiselberg came to the following conclusions:

1. The one-sided total extirpation always causes fatal tetany. Neither can the previous or subsequent transplantation of the thyroid gland of another, or of the same cat, nor the injections of thyroid fluid, nor the administration of opiates prevent the occurrence of the disease.
2. Partial extirpation never causes tetanic symptoms.
3. Double-sided total extirpation causes fatal tetany, which never-